



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,221	07/31/2001	Danny C. Vogel	5201-23900 01-138	4596

7590 08/07/2006
Leo J. Peters
LSI Logic Corporation
1551 McCarthy Blvd., MS D-106
Milpitas, CA 95035

EXAMINER

BLOUNT, STEVEN

ART UNIT	PAPER NUMBER
----------	--------------

2616

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,221

Applicant(s)

VOGEL, DANNY C.

Examiner

Steven Blount

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 6 - 8, 10 - 23 is/are pending in the application.
- 4a) Of the above claim(s) 1, 2, 4, 6 - 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10 - 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicants election of claims 10 – 23 is acknowledged. Applicants traversal of the restriction requirement, which explicitly states that the searches will overlap, is not convincing since the subject matter is separately classified as noted in the restriction requirement. Further, the inventions are particularly distinct and independent in this case. Therefore, the restriction requirement is made final.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 10 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,144,624 to Sharper et al in view of U.S. patent 4,893,310 to Robertson et al.

Sharper et al teaches using a comparator to check to see if signal bits have changed value, and replacing them when this has occurred. See col 3 lines 20 – 30; col 6 lines 5 – 30; and col 9 lines 1+.

Sharper et al does not, however, teach notifying a DSP of the replacement.

Robertson et al teaches a similar system wherein a DSP is notified via member 882 (see fig 12) of matches. See col 16, lines 51+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided Sharper with a means for notifying a DSP of a replacement,

in light of the teachings of Robertson et al, in order to provide a device which can track the total number of changes which have occurred in the signaling data.

With regard to claim 18, see the discussion above where all the method steps are taught.

4. Claims 11 – 17 and 19 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,144,624 to Sharper et al in view of U.S. patent 4,893,310 to Robertson et al as applied above to claims 10 and 18, and further in view of U.S. patent 6,782,066 to Nicholas et al.

With regard to claim 11, Sharper et al/Robertson et al teach the invention as described above, but do not teach a register for storing and placing third signal bits over the voice channel.

Nicholas et al teaches a system similar to Sharper et al and Robertson et al wherein robbed bit signaling is examined for changed values. See col 7 lines 20+, and lines 40+. Nicholas further teaches injecting a synchronization pattern to detect frame slip. See col 4 lines 40+ and note the use of this pattern in the matching process in col 6 lines 60 to col 7 lines 1+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have injected a synchronization pattern into the system of Sharper et al/Robertson et al in light of the teachings of Nicholas et al in order to provide a system that can detect *and correct* for frame slippage.

With regard to claim 12, it would be obvious to extend the above teachings to a plurality of voice channels. With regard to claim 13, the introduction of the third signal

Art Unit: 2616

bits would be a change in the voice channel status. With regard to claim 14, see the discussion of the introduction of the signal bits above. With regard to claim 15, the references cited refer to TDM. See, for example, fig 3 of Sharper et al. With regard to claim 16, it would have been obvious to use a processor to change the signal bits. With regard to claim 17, an interrupt is mentioned in the above cited portion of Robertson et al, it would be obvious to use one in Sharper as well. With regard to claims 19 – 22, see the rejections above.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 571 - 272 - 3071. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached on 571 – 272 – 7269 . The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB


7/21/06

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600